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AUXILIARY POWER SUPPLY

Used By The

EMERGENCY COMMUNICATION NETWORK

BY

C. F. Fryar VK2NP

Although the Emergency Communication Network has been in operation in New South Wales for some time now, using the A.C. Mains as the source of power, it was fully realised that, to live up to its name, the Network should be capable of functioning independently of the mains. With this thought in mind the writer set to work to design a universal power supply to operate from 240 volts A.C. or 6 Volts D.C. supplied by storage batteries.

Since the outbreak of hostilities, which was to curtail the activities of thousands of Amateurs the world over, the very little used - as far as Amateurs were concerned - vibrator unit came into its own and due to the progress made with its manufacture, it is used by the Defence Forces of every nation as a means of supplying H.T. to countless Transmitters, Receivers and pieces of Equipment requiring a constant source of voltage independent of the A.C. Mains. With care and proper attention to the manufacturer's ratings their operation is practically trouble free.

The power transformer was the first problem and although a standard receiver type was revamped for AC-DC operation, losses were too great and having the resources of a well equipped laboratory at my disposal specifications were drawn up and submitted to a local manufacturer. This transformer has the following windings. Primary 240 volts A.C., 6 Volts D.C. for Vibrator and Secondary 350 volts each side of Centre tap at 150 mills and a 6.3 volt 8 amp. for lighting all filaments when working on A.C.

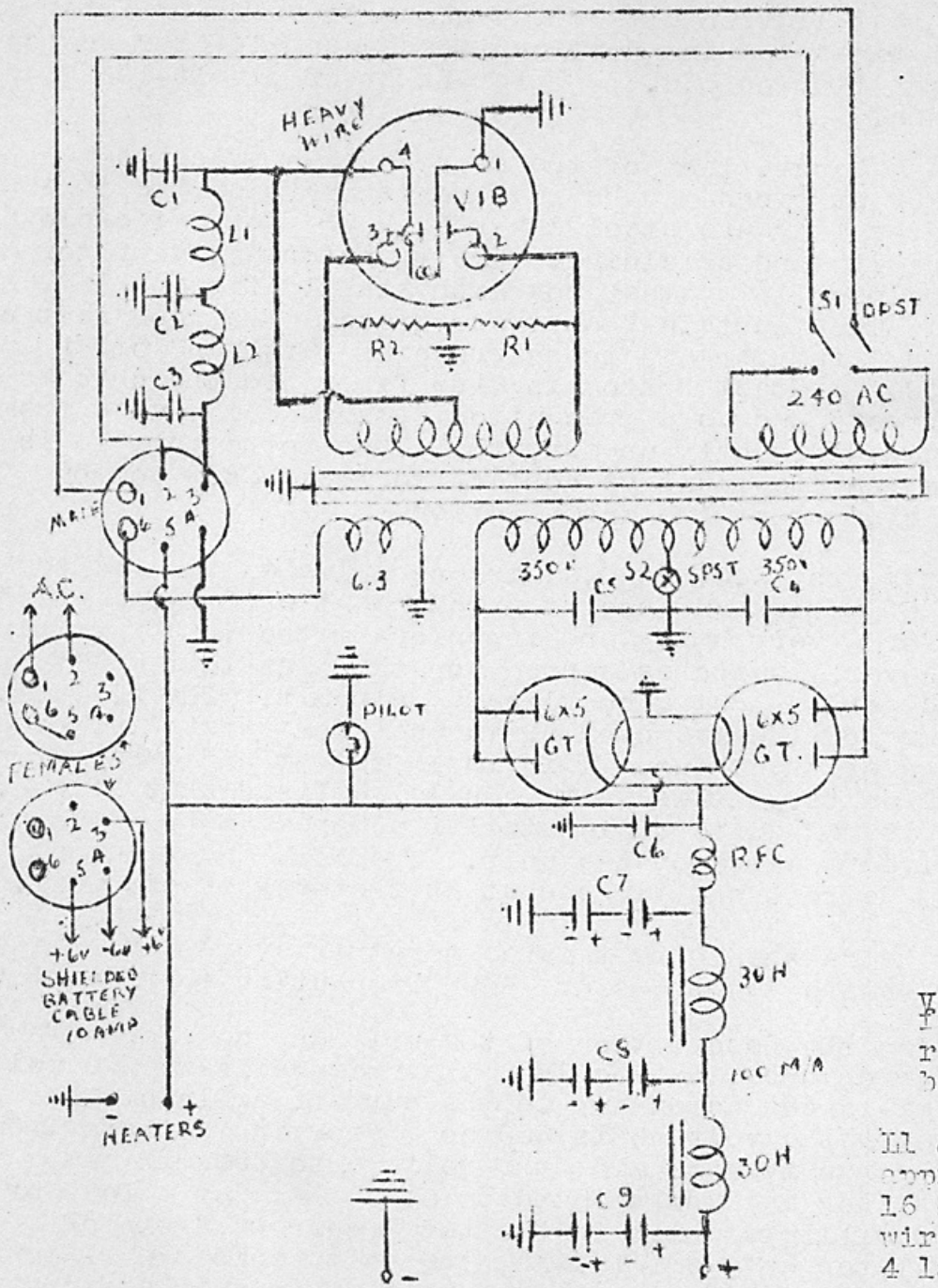
The Vibrator Unit is a 6 volt non-synchronous type rated at 100 milliamps maximum output using a full wave tube rectification system for minimum voltage drop and under test this unit withstood a 200 mill drain without noticeable signs of wear and tear on the contacts. It is suggested that operators do not carry out this overload test! At this severe overload the battery drain was in the region of 12 to 14 amps. However, under normal operating conditions viz., 100 mills the battery current dropped to 9 amps which is not an unreasonable drain. This current drain does not include the filament drain of the transmitter and receiver. A separate accumulator automatically connected by a plug and socket arrangement as shown in the circuit diagram takes care of these filaments.

The INPUT HASH FILTER is quite conventional and consists of a pair of L.T. Chokes wound with 70 turns of 16 gauge enamel wire on a $\frac{1}{4}$ inch former and by passed to earth by means of .5 mfd tubular condensers. These chokes must be wound with heavy wire to ensure no voltage drop at the vibrator terminals. For the same reason all connections between battery, transformer and vibrator should be wired with the same gauge. The 100 ohm resistors across the vibrator are to suppress sparking at the contacts.

The BUFFER CONDENSERS. This is probably the most important component in a vibrator power supply. If it were omitted from the circuit or should the capacity be incorrect, excessive sparking at the contacts would occur and the life of the vibrator considerably shortened and in addition battery drain would be high with a corresponding loss in output. Therefore the constructor would be well advised to experiment with different values. The ideal test of course would be with a 'scope, but we cannot all avail ourselves of the use of one of these very handy pieces of equipment. Proper values are usually between .005 mfd and .01 mfd, the condensers being rated at 1500 volts working.

RECTIFIERS. This section consists of two 6X5GT valves with their plates connected in parallel, used as full wave rectifiers. The centre tap of the transformer is earthed through an On-Off Switch. By removing one of these tubes the voltage drop is only about 40 volts, and this means that the installation is capable of operation should one fail at any time, although inefficiently.

H.T. OUTPUT FILTER. This section is quite conventional although somewhat elaborate, and consists of an R.F. choke and by pass condenser immediately following the rectifier. The filter condensers C7.C8 and C9 are 14 mfd. 600 volt working electrolytic connected totalries to give a total capacity of 7 mfd. and a working voltage of 1200 volts. When the unit was first constructed only one electrolytic was used with disastrous results, so it was decided to play safe and use two in series. The filter chokes are



Vibrator transformer and rectifiers to be shielded.

L1 & L2 1½ chokes approx 70 turns 16 SWG enamelled wire on ½" former 4 layers

C1,2,3.....0.5 400v
C4,5.....0.01 2000v
C6.....0.004 600v
R1,2.....100 ohm carbon
S1.....DP switch to break both legs of AC

C7,8,9...2x14 mfd 600v electrolytics in series to make 7mfd 1200v working
S2...On-off SP switch.

of standard design and should be capable of carrying at least 100 mills and for preference 150 mills. A Bleeder resistor of 25000 to 50,000 ohms was used in the original unit although not shown in the circuit diagram. Actually its incorporation is of doubtful value as some part of the installation either the Receiver or Transmitter will be running at all times and in addition it uses some of the scarce milliamps when operating on D.C. A Pilot Light of 6 volt is added as a safety measure.

CHASSIS. Here is a description of the chassis which was used and it is hoped that other stations may be in a position to duplicate same. It is constructed of 18 gauge steel 12" x 8" x 2½" for a twofold purpose viz., rigidity and shielding. The transformer, vibrator and rectifiers are enclosed in a steel box with tightly fitting lid and the builder should make certain that these pieces make good contact with each other as a further aid to suppressing harshand other noises when on D.C. A Steel bottom is also fitted to the chassis for shielding purposes and as a precaution against acid fumes from the batteries located directly underneath. This bottom shield is cadmium plated to provide positive contact to frame as a common negative is used throughout the installation.

The changeover from A.C. to D.C. is accomplished in a matter of seconds by means of a plug and socket arrangement credit for which is given to 2RA for a very handy and ingenious method. The original idea was to use several switches ganged together but that meant a lot of wiring and working out a complicated circuit. The D.P.S.T. in the A.C. Primary of the transformer is used for safety purposes to break both legs of the mains. This is important and must be incorporated in all units.. It is quite easily realised that if a S.P. switch were used it may quite accidentally be wired in the neutral side and the active be alive on the unit. The H.T. and Filament connections are made to a six pin socket at the back of the unit.

The battery leads should be twisted together evenly and shielded for almost their entire length as an added precaution to prevent this.

This completes the description of the unit and now for a few details on its performance. At no load the unit delivers 390 volts. At a load of 50 mills corresponding to the current drain of the speech amp-modulator the voltage is 350 so a dropping resistor should be included in the receiver to drop the voltage to 250 mixiimum. The value of this Resistor is easily found by Ohms Law. At a load of approximately 130 millimps which is the total current drain of Transmitter, Modulator and aerial relay the voltage is 320 mixiimum. The 807 stage draws 40 millimps. The current drain on the Vibrator battery at this load is 10 amp and the drain on the Filament battery 6.5 amps. The batteries are 130 ampere hours rating. This means that they will last nearly 12 hours before needing recharging. The output voltage working on D.C. is approximately 20% less than on A.C. and according to reports from Control this does not appear to affect the signal very much.

(Continued, Page 8)

ELECTRIC SYNCHRONOUS CLOCK

... For those Mechanically Inclined ..

.....

This article is a copy of one published in The Zero Beat News several years ago. The clock has been built by the sender VK2OM and works very well. It is for operation on 240 volts 50 cycle.

The clock is not self-starting but has to be started by gently turning the spindle. The motor does 2 00 R.P.M. and has a worm wheel to give a 40 to 1 reduction on second's spindle. For the stator 2 plates are required, 3" in diameter and about 18 (10 g. is better if you can get it machined) or 20 gauge. This is marked out as shown in Fig. 1. The holes for the nails are drilled with a No. 37 Drill. Before drilling, hone off the shoulder of the drill so as to make a neat hole (shown in Fig. 2) which will make the nails a tight fit. 15 nails number 12 gauge are cut to $\frac{5}{8}$" lengths and then soldered into the holes. This completes the two Plates for the stater.

A piece of Brass Fibre or cardboard tube $\frac{3}{4}$" long and 1 11/16" inside Diam. is then slipped on over the nails of one plate and the other plate is pushed on from the other side (see Fig. 3). The inside face of the Plates is insulated with paper and the winding is put on (2 ozs. 45 gauge swg enamel). After winding insulate with a strip of paper, and then a piece of this sheet iron $\frac{3}{4}$ " wide and about 9$\frac{1}{2}$ long is fitted around the coil. This completes the magnetic set from the nails on plate on one side to nails in opposite side. The coil should have about 6000w D.C. Resistance, but is not critical (except from an economic point. The higher the resistance the less current) (5000 ohms will not operate my own electric light meter).

THE ROTOR: A piece of spring or cast steel 2" square is marked out as shown in Fig. 4 and after drilling is hacked out with a hack saw and finished to size with a file. When finished it should look something like Fig. 5 (less N.S.N.S.N.S. Ha.) After being drilled to take spindle fit same and try turning Rotorinside stator. (it should turn O. K.) If it doesn't, file it down a bit or scrape a little off the nails. When it runs freely make it red hot and quench in water after which it is to be magnetized as shown. The jig for magnetizing is shown in Fig. 6 about 2 ozs. of 26 gauge is wound as shown on 6 poles mounted on an iron base. (I use 6-$\frac{1}{4}$" bolts about 2" long) a 6 volt batt. is then flashed 3 or 4 times with the rotor sitting on top of the poles. (if you want a really strong magnet use 45v B Batt.)

The bottom end of the spindle is ground to a point and the bottom bearing is a screw removed from an old clock. (The escape

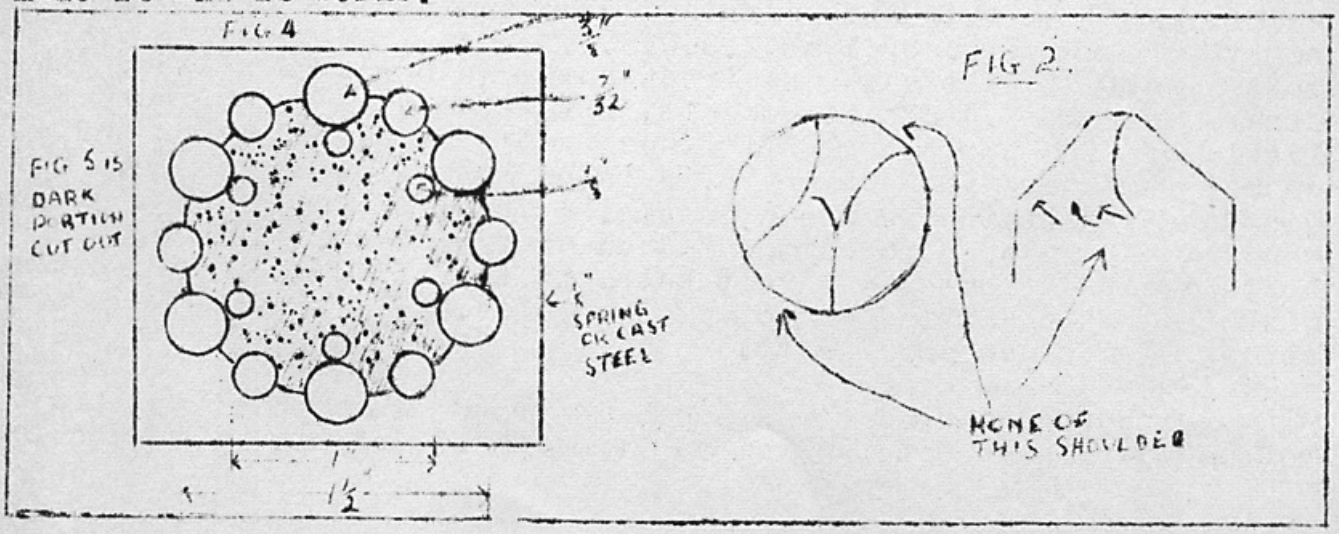
wheel bearings are used for this.) The other bearing is just a piece of 3/16" brass drilled to fit spindle. A worm wheel is next fitted to the spindle and this has to gear with a 40 tooth wheel (removed from the alarm portion of old clock) a half inch Whitworth bolt will do in most cases if the teeth on the wheel are filed a little. It will be much better if a worm wheel can be turned up in a lathe, but the bolt will work. The motor is now complete. An old? German alarm clock is required unless you happen to have a lathe. If you have let me know and I'll give details for making the whole works.

Remove all the works from the clock except the main spindle, the second hand spindle and the wheel and pinion coupling these two.

The second's spindle is usually fitted with a 40 tooth wheel, if not in your case, fit one or get another clock. Now a spindle has to be fitted with an 8 tooth Pinion to mesh with the 40 teeth on the second's spindle and the 40 tooth wheel from the front of alarm portion is put on to the other end of this spindle. This wheel gears with motor (gearing is shown in schematic, Fig. 8). The clock complete looks something like Fig. 8.

PARTS & TOOLS REQUIRED: 1 old German alarm clock (a new one will do Hi.) 2-3" Diam. iron plates for Rotor. 1-2" square by $\frac{1}{8}$" thick cast or spring steel for Rotor. 12 gauge nails. 1 piece of Brass, fibre or cardboard tube. 2 ozs. 45 gauge SWG enamel. $\frac{1}{2}$" Whitworth bolt for worm wheel. No. 37 Drill (7/64" is nearest fraction but 7/1000" oversize). 3/8 Drill. 7/32 Drill. 1/ 8 Drill. Hacksaw, file, soldering iron, a little commonsense and plenty of patience. (I'm still thinking of that 45 SWG).

Any information required may be obtained from VK2OM who also has a magnetising jig for anyone who wishes to use same. Naturally half the fun of making anything is to figure it out for yourself... I got plenty of splinters in my fingers, but I managed the job and I'm no genius, so I guess the interested lads can do the same...I made it and it works.



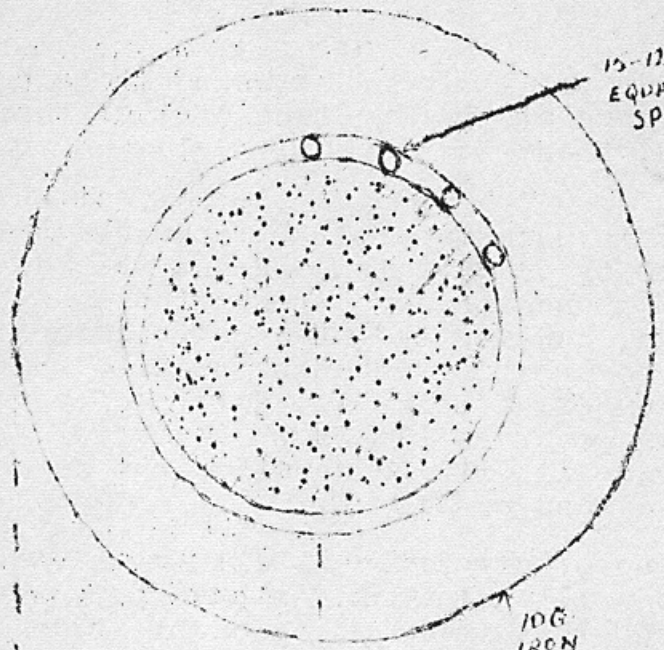
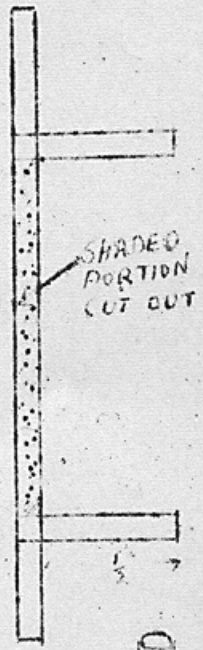


FIG 1
STATOR PLATE



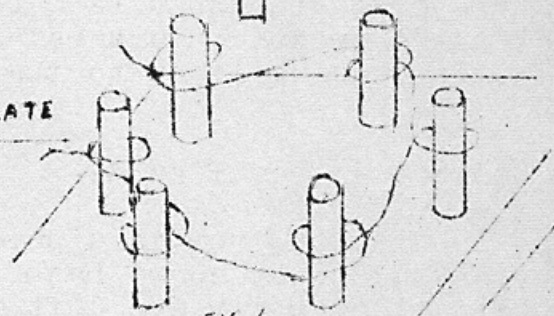
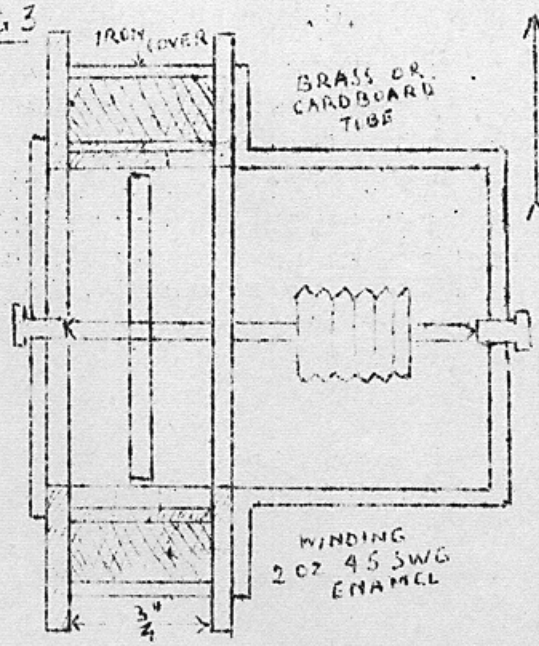
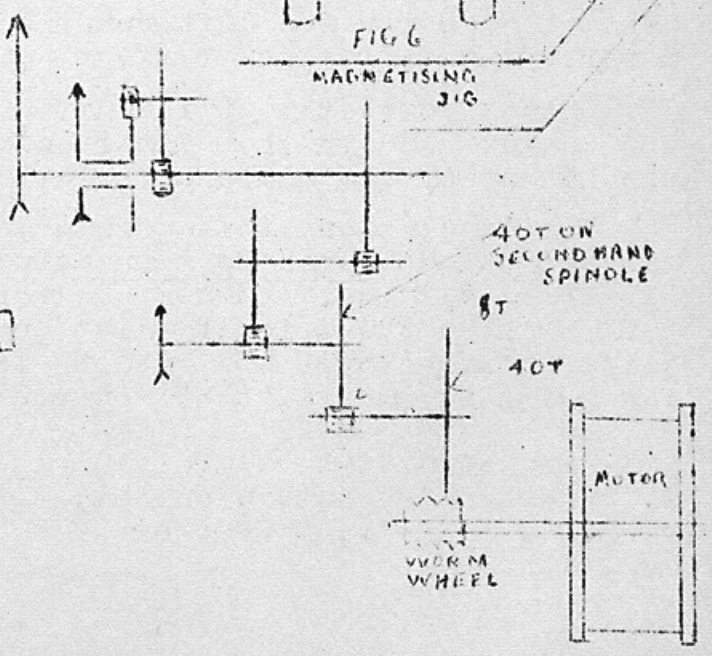


FIG 6
MAGNETISING
JIG

FIG 3





ANOTHER METHOD OF REJUVENATING ELECTROLYTICS

.. By VK2ABS ..

I read with interest in a recent issue of "A.R" of methods of rejuvenating old electrolytic condensers and thought I would pass on a method which I have found to be effective with 90% of wet electrolytics.

The reason for the failure of the condensers seems to be a thin dielectric film which forms at the junction of the aluminium anode and the supporting rod, these being usually clamped or sometimes riveted together.

The cure is to remove this unwanted film by connecting the condenser in series with a 40 or 60 watt lamp across the 240 volt ac mains. Usually nothing happens for several minutes and then the film suddenly breaks down, causing the electrolytic to sizzle and the lamp to light. The power should then be switched off and the condenser reformed by connecting to a D.C. supply of several hundred volts from a receiver power supply or the like for about ten minutes. After this period it will be usually found that the condenser has acquired a new lease of life.

Obviously, if there is no electrolytic at all in the condenser to start with this method will not work. I have fixed over a hundred or so condensers using this method, so thought it worthwhile passing it on to the boys.

...o0o0...

Continued from Page 4:-

The Receiver is a super-regen and with the gain turned to maximum, no trace of hash or noise was noted, and as a further test the carrier was left running for a few minutes and Control reported no difference between A.C. and D.C.

Since completing this unit a L.T. fuse of 15 amps was added to the A plus lead in the Battery circuit to guard against overload should any of the components fail at any time.

In conclusion it is pointed out that with proper handling and strict adherence to manufacturer's ratings this unit will give 100% service. Remember Transformer, Vibrator and Rectifiers rank high on the priority list and it may be impossible to replace same. The motto of the Network is "Ready for Any Emergency". Never let it be said that you could not live up to it.

Any enquiries regarding this unit should be addressed to C. Frvar MW2484 extension 271, 113 a Teenyson Road, Gladesville, or R. A. Priddle, BW6006 or XF1885, Sraner Road, Greenwich.

SLOUCH HATS and FORAGE CAPS.

Please Mr. Editor, may I lodge an objection? You usually put "By 2YC" under my title, and that is giving me, usually, credit for a lot that I do not write. All kinds of chaps wearing all kinds of Australia's fighting Hats and Caps write this column, and all I do is to retype, these, their messages to the friends they still remember, till the QSO8 start again. In some cases I mention who the writer is, but where I am not sure this is wanted by my correspondent, I leave the call out. But this, I insist, is the Hams column and very little credit is due to 2YC, except for the "lousey" typing by means of one finger.

I nearly sent these notes down to VIM by hand as 30F was on his way home for a week's leave, after a nice long cruise" in northern and north-eastern waters" as the communiques say. It is said their ship was sunk (by Dame Rumour) at least once a week while away, but as 30F reports Wilf 2ALF and the others "all in the pink" the less of the ship seems to have been a little exaggerated.

Bill Lewis 2WB/6WB is now down in VIM doing his "pre-commission" course. Best of luck Bill, om, you deserved it long ago. 2HC must have about finished his by now.

Did you know 3RJ went to VK4 on "business" and, believe it or not, went both ways...in a train." How did you let him get away with it, Vaughan, can't you "make" him fly. Hi!

We do get the news the "hard" way sometimes. From the T & R Bull. I see that Charlie Miller 2ADE is the proud Father of a Daughter. Why keep the good news so darkin VK, em??? Congratulations, and I trust the young lady is fb, with 100% modulation at 3 a.m.

Sid Clarke also has a Baby daughter...talk about the silent service, Sid. With four BOYS I'll have to have a chat with you and Charlie. HI! to see what it is I don't know!!!!!

VK3OG..,Johnnie Brogan of Merbein is a signalman in the 1st Aust., Independant Signals Group A.I.F. somewhere in Australia.

VK3VN...P.H.Evans formerly of Smeaton now a Flying Officer in the R.A.A.F.

VK3EC...Sgt. E. Cook of Swan Hill is still in the North with group 34 of the R.A.A.F.

VK3TD. Flying Officer A. N. Buzacott, ex technician at 3LK, Lubeck, is now with the R.A.A.F. Directorate of Sigs (quite a lot of water has passed under bridges since the days at McMahons Pt., em!!! ...73 from the 2YC's)

VK3OJ Corp. Robt. Stevens of a sigs group in New Guinea reports having met W7GTH Sgt. Verne Egerton of Oregon U.S.A.

VK3VZ..Signaller J.C. Duncan now located with Sigs H, 12th Aust...Division.

VK3EH...Sgt. E. H. Foot of Balwyn at present with LH, School of Signals at Bonegilla.

VK3CT...L.C Graf of Group 962 R.A.A.F. doesn't worry about "slickers and passbooks" now. Hi!

VK3FW...Pilot Officer Bill Fulton is to be congratulated on obtaining his Commission. Bill is with Group 625, R.A.A.F.

VK3IO..A. L. Maquire of Stratford is a "Loot" with a heavy A/A Battery.
VK3WH..A.W. Chandler is still with the R.A.A.F. at Ballarat and is now a Warrant Officer.
4RF...left Canberra, but judging from the following from 3RY, they are all "star reporters" up there. By the way, Ray. Fred was here at 2YC's the other night and says "there is no doubt about you." Hi! He has been for a trip up north and now has a good "American touch" as he reckons that the mosquitos are so big up there that when one landed on a "drome the lads at first used to rush out to refuel it???
VK3RY...fills the page as follows -
"First the Roll Call of the Canberra Clan:-
VK3/2EO...Dave Duff, Chief Shore Wireless Operator.
VK3RY ...Ray Smith, Petty Officer, Telegraphist.
VK2ANP ...Jack Gore, Leading Telegraphist.
VK2ANK ...Acg Allan Morris-Rees, Telegraphist
VK5FA ...Brian Anderson, Leading Telegraphist
Of the W's
W6LOM ...W. B. Hurst, Lieutenant U.S.N.
W6RBA ...B. Litwak, Radioman, First Class
W5FPX ...C. E. Gibbs, Radioman, First Class.
W8GFB ...A. Holzmiller, Radioman, First Class.

But as he says the establishment is now so big and there are so many both of our and the US Naval men there that no doubt other hams are on the station (Fred says you missed a W9. Hi!)
VK2EO is still going strong at the transmitting station at Belconnen and has a crowd of Wireless Mechanics to train to add to his worries. How he keeps all those 2RO rigs on the air is something of a miracle. He certainly has 'em tamed. As the Xmitters are pretty active, finding time to service them is a bit of a problem. When I last saw Dave he was busy cleaning out one of the 120KW bottles. In some of the Xmitters they put in four big " bottles" using them two at a time, and the aerial currents is several hundred AMPS, and how! Yes, sir, 2EO is a busy man these days. Would you believe it, he takes keen delight in sending young and unsuspecting sailors out into the paddock on a push-bike so that they have to pass under the big set's aerial. You should see the looks of astonishment when the youth topples off when the RF makes the old push-bike a bit too hot to handle. (I must remember TT when I pay my visit to Canberra, Dave...2YC).

VK3RY (that's me) is now the proud Father of a bonny daughter. The junior op certainly takes up some time. This is my first and seems to demand a lot of attention so 3RY doesn't get much time for anything else, ask Frank O'Dwyer, he knows. (What's the use, Frank "ran away" to sea. Hi!..2YC-)..incidentally, apparently so did 4HF. Hi!) I am as 4RF has told you in charge of maintenance at the receiving station and am rather fortunate in "possessing" a rather modern service lab., with plenty of test equipment to play with. There is not much time for play though, as I have more than half a hundred or so, of modern communication receivers to keep in working order, besides high speed gear, remote control equipment for the xmtrs, diversity receivers, UHF gear

(Continued on page 14)

D I V I S I O N A L N O T E S

.. Federal Headquarters ..

Federal Headquarters has now been located in New South Wales for close on two years, now the minimum period that any State may act as Head-quarters Division without reference to the other Divisions. This fact has been brought under the notice of the States concerned and they have been requested to forward their views regarding the location of the Federal Executive for the next two years.

One of the first acts of the Federal Executive in New South Wales in 1941 was to take a Census of all Amateurs in an endeavor to ascertain the Experimentors part in the war effort. The success of the Census was apparent from its inception and nearly 603 of cards were returned. As two years had elapsed since this Census was taken the possibilities of bringing it up to date were discussed at the August Meeting of the Executive and it was decided that although the Cards must now be considered out of date the question of a revision should be left until the cessation of hostilities.

The tenth anniversary of "Amateur Radio" was brought under the notice of Councillors and they were of the opinion that the magazine although in a roneo-ed form compared favorably from a technical point of view with any experimental publication being published anywhere else in the world to-day. It was felt that the publication of the various Divisional Reports had done much to make the publication the mouthpiece of Amateur Radio in Australia. The Victorian Division assisted by New South Wales are to be commended upon their efforts and should gain a great deal of satisfaction that their efforts have also received commendation overseas. Congratulations, VK3.

Shades of the past. At its last meeting the Federal Executive received an application for a W.A.C. Certificate from Telegraphist Fred Lubach VK4RF! Let us hope that the International Amateur Radio Union is still issuing them.

....oOo....

NEW SOUTH WALES DIVISION

August General Meeting of the Division was quite the largest for some considerable time and quite a number of old and familiar faces were noticed among the gathering. In the absence of the President, the Chair was occupied by Harold Peterson VK2HP.

Members were informed that the present term of Office of the Federal Executive would expire in September and that Federal Headquarters had notified the Division of this fact. It was unanimously decided that New South Wales was quite prepared to act as Head-

quarters Division for the next two years and that the method of election be the same as in 1941. A vote of appreciation of the splendid work carried out by the Federal Executive during the past two years was carried by acclamation.

Several recommendations from Council were discussed by Members, the first being a suggestion that the Division endeavor to raise funds to augment the Australian Comforts Fund "Adopt a Soldier Scheme" Members were informed that under this scheme the payment of £2/12/- per annum would provide weekly comforts for one soldier for a period of twelve months. It was decided to inaugurate this fund immediately and through the courtesy of Messrs. Bennet 2VA and Noad the September General Meeting to be held on the 16th day of that month will take the form of a Picture Night. In addition, it was decided that all members be circularised bringing under their notice this entertainment.

Another recommendation was that the Annual Dinner be revived. This suggestion caused considerable discussion and it was finally decided that each member be circularised in an endeavor to ascertain the approximate number of hams who would be present.

During the month two overseas visitors, Messrs. Al Stansfield W2NDJ and Jim Dimmock W6PBO were entertained and it was anticipated that they would have been present at this meeting, but Douglas decreed otherwise!

A striking example of faith in the Institute was exhibited by one of our country members recently. He forwarded sufficient funds to make himself financial up to 1947! That's the spirit. With chaps like you ham radio will always prosper.

Members will regret to learn of the passing of "Jerry" Junk VK2EY, who was accidentally killed on Saturday 21st August. 2EY was attached to VL2JK recently, and was rapidly proving himself a keen and capable operator. His passing will be mourned by a host of good friends. A wreath was forwarded on behalf of the W.I.A. and E.C.N.

The next Meeting of the Division will be held at Y.M.C.A. Buildings, Pitt Street, Sydney, on Thursday 16th September, and will as previously mentioned take the form of a Picture Night in aid of the A.C.F. "Adopt a Soldier Scheme" Don't come alone, bring the XYL and let her see the fine bunch of fellows you meet at the Y.M.C.A. each month.

...oOO...

EMERGENCY COMMUNICATION NETWORK

August General Meeting of the Division was made an E.C.N. night, all operators being called together to discuss the workings

of the Network generally, and to make suggestions regarding improvements. The main subject was that ago old topic "Fone versus C.W." It was decided that a Morse Practice Class be held each Sunday morning between 9.30 a.m and 10 a.m immediately prior to the commencement of the Exercise. In addition, Messrs. Frrar and Thompson volunteered to act as instructors should operators be willing to support a class to be held on each Tuesday in the month.

Saturday 4th September was Civil Defence Day in Sydney and the Network was represented on the State Control Float in the procession that formed part of the celebrations. This Float depicted the manner in which State Control would work in an Emergency, Communication being the main feature. The Radio Section exhibited the type of installation at the outlying stations - VL2JL's, as a matter of fact. Two operators were seated on the truck and during the march Morse signals were trnasmitted in two different tones through loud speakers thus giving the impression that two stations were handling traffic. This ingenious idea was the result of a brain wave of Chas. Frrar VK2NP.

EDITOR'S NOTE:- Unfortunately owing to lack of space the rest of this report has been crowded out.

WESTERN AUSTRALIAN DIVISION

... Emergency Communication Network - By VK6FL ...

Whilst we are not in the fortunate position of being able to conduct a series of message handling exercises, such as recently held by the New South Wales Division, we feel that the stage is set, and the prospects very bright. Much good work has been done in recent weeks, and the installation at Central Control should be completed by the end of this month. Various tests have been carried out between fixed points, culminating in a general survey of the Metropolitan and Suburban areas on May 29th.

A Mobile unit operating from the car maintained satisfactory contact with two fixed Metropolitan Stations. Fourteen selected points in the various Control Areas, were tested and the results obtained auger well for the future of the E.C.N. in this state. The two fixed stations were operated by 6GM and 6LW whilst 6FL and 6NL spent the greater part of the day in the car.

In view of the temporary nature of the equipment in the car, and the transmitter power (4 watts) some doubts were expressed as to its ability to do the job. This proved mere delusion and those who took part in the test were very gratified with the results.

6LW Wally Peterson has done some excellent work with the transmitter for C.C. and is to be congratulated on a splendid job. Wally is full of enthusiasm and always ready to co-operate in any matters relating to E.C.N.

6GM George Moss, also doing great work and has the installation at C.C. well in hand. George and Wally work hand in hand, and between them have accomplished a great deal in the design and construction of equipment.

6FL..Full of enthusiasm, derives much pleasure co-operating with above in various tests. Particularly likes being called out at 0500 hrs (say's you).

6HL..also very keen. Seen at control Centre during course of instruction. Harry, did you forget your lines the other night? Hi!

Personalities are few, but many well known VK6 hams were seen at course of instruction for Communications Staff at C.C. As this course is almost completed we trust they will now take an active part in E.C.N.

6CB..Cliff Brown still as full of enthusiasm as ever, and doing a great deal to further the interests of E.C.N.

In conclusion, I might mention that we feel a great deal has been accomplished, and in this respect we owe a debt of gratitude to our worthy Secretary Charlie Quin 6CX, who has been tireless in his efforts to support and further the prospects of E.C.N. in this State. His time is limited and duties many, but never the less he always manages to do the seemingly impossible.

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VICTORIAN DIVISION

The Annual General Meeting of the Victorian Division was very well attended, a representative gathering being present.

The election of President for the ensuing year was closely contested, Messrs. H. N. Stevens VK3JO; R. Marriott VK3SI and J.B. Marsland VK3NY were nominated for the position and on going to the ballot Mr. H. N. Stevens was re-elected.

Council elected for the next term were:- Messrs. R. Marriott, J. A. Ridgway; H. Burdekin; A. Clyne; H. N. Stevens; J. G. Marsland; I. Morgan; and C. Quin.

At the subsequent Council Meeting Mr. R. Marriott VK3SI was elected Chairman of Council. Secretary, Mr. R.A.C. Anderson, VK3WY. Mr. J.G. Marsland VK3NY was re-elected Treasurer.

Members are notified that if they are still unfinancial this issue of Amateur Radio,.the September Issue will be the last forwarded to them. If they wish to continue to receive Amateur Radio, the Treasurer will be very pleased to receive their subscription.

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electrical equipment, etc. etc. Besides that there is new gear being installed all the time. However, I am now training an assistant to ease the burden a bit, while in my "spare" time I am teaching Radio to the WRANS. Thanks 3RY--2YC.

2ANP has forsaken the WRANS and brasspounding for a quieter life in one of those "censored" parts of the Services.

5FA has also recently been endowed with a Junior Op in the shape of a nice little daughter.

Mr. Editor, I ask you, five baby daughters on these two pages... are they slinging off at the 2YC's four sons???

THE WIRELESS INSTITUTE OF AUSTRALIA

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The Division meets on the Third Thursday of each month at Y.M.C.A. Buildings, Pitt Street, Sydney, and an invitation is accorded to all Amateurs to be present.

HAMS !

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